REMARKS

Claims 1-29 are pending in the present application. Claims 1-29 have been rejected. In the above amendments, claim 5 has been amended to obviate the Section 112 Rejections, pointed out below.

Applicant respectfully responds to this Office Action.

Claim Rejections Under 35 U.S.C. § 112

The Examiner rejected claims 5-8 under 35 U.S.C. § 112, second paragraph. Claim 5 has been amended to obviate the Section 112 Rejections.

Claim Rejections Under 35 U.S.C. § 102(b)

The Examiner rejected claims 1 and 2 under 35 U.S.C. § 102(b) based on U.S. Patent No. 5,577,168 to Hass et al. (hereinafter, "Hass").

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." M.P.E.P. § 2131 (Aug. 2001) (quoting Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). "The identical invention must be shown in as complete detail as is contained in the . . . claim." Id. (quoting Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)). In addition, "the reference must be enabling and describe the applicant's claimed invention sufficiently to have placed it in possession of a person of ordinary skill in the field of the invention." In re Paulsen, 30 F.3d 1475, 1479, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994).

Applicants respectfully submit that Claim 1 is not anticipated by Haas because Haas does not disclose all the elements of Claim 1. Claim 1 recites a method that includes the step of "transmitting from the second infrastructure element associated with the packet data services node a message including a number of dormant network connections associated with the mobile station and a reduced list of identifiers associated with the dormant network connections,

wherein the dormant network connections are connections that are not being used to transmit traffic channel data." The prior art cited does not teach or suggest these claim limitations.

Haas discloses a packetized cellular system in which a mobile quasi-periodically transmits a beacon signal containing and ID number to a first base station in the cell in which it is located, where the ID is stored along with the IDs of other active mobiles in the cell. (Abstract). A copy of the list of the active mobiles in that cell is transmitted to all adjacent cells where they are placed on a non-active list. Control of a mobile is handed off to a second base station upon the receipt of a transmitted ID number of the mobile at the second base station. (Abstract). Haas discloses a hand-off scheme that uses a separate, universal signaling channel (S-channel) that is continuously monitored by every base station. The S-channel is a control channel which is used to establish, maintain, update and terminate the associations of mobiles with the base stations. (Col. 3, lines 23-28). A mobile can be either in the powered or "on" state or in the power "off" state, referred to in Haas as "active" and "non-active" respectively. When in the active state the mobile is associated with an ID number. (Col. 3, lines 9-12). Every active mobile emits a beacon signal on the S-channel, which includes the mobile station ID number. (Col. 3, 32-34). Using the ID numbers transmitted on the beacon each base station maintains a database list of the mobiles in its coverage area – called active mobiles. In addition, each base station maintains in its database a list of mobiles in the neighboring cells which are locally referred to as non-active mobiles. This information is made available by periodic dissemination of the list of active mobiles in each base station coverage area through the terrestrial network. (Col. 3, lines 50-58). When a base station fails to receive a beacon from an active mobile for a specified period, the base station determines that the mobile has left its coverage area. The ID number of the mobile is then made non-active in the database and the connection to the mobile destination is made dormant. (Col. 4, lines 18-23). This is not the same as the step of Claim 1 which discloses "transmitting from the second infrastructure element associated with the packet data services node a message including a number of dormant network connection associated with the mobile station and a reduced list of identifiers associated with the dormant network connections". Therefore, Applicants submit that Claim 1 is not anticipated by Haas.

10

In the Response to Arguments the Examiner states that "Haas teaches applicants' claim limitation of transmitting a message which includes a number of dormant connections associated with a mobile station." Applicants respectfully submit that Haas does not teach the stated claim limitation. Rather, Haas teaches that the base station considers a mobile station active or inactive relative to the base station's coverage area. Therefore, Haas does not teach the stated claim limitation. Thus Haas does not disclose "a message including a number of dormant network connections associated with the mobile station and a reduced list of identifiers associated with the dormant network connections." At most Haas appears to disclose transmitting from a base station a list of active mobiles, the address of the destinations of the connections of the active mobiles, and the transmission channel numbers associated with the active mobiles. (Cols. 3 and 4) These items transmitted in Haas do not include "a number of dormant network connections associated with the mobile station."

Because the transmission of Haas does not include "a message including a number of dormant network connections associated with the mobile station", as shown, it also cannot disclose the transmission including "a reduced list of identifiers associated with the dormant network connections" because the "dormant connections" of Haas do not refer to dormant network connections, but rather, to dormant mobile stations relative to a particular base station.

As set forth above, the Haas reference does not disclose every element of claim 1. Claim 2 depends directly from claim 1. Thus, Applicants respectfully request that the rejection of claim 2 be withdrawn for at least the same reasons.

Claim Rejections under 35 U.S.C. § 103(a)

The Examiner rejected claims 5, 6, 9, 11-15, 17-21 and 23-26.

To establish a prima facie case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. "The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicants' disclosure." In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Applicants respectfully submit that a prima facie case of obviousness has not been established regarding claims 5, 9, 11, 15, 17, 21 and 23 because the prior art cited does not teach or suggest all the claim limitations.

Claim 5 recites a method that includes the step of "transmitting from the mobile station a message including a number of dormant network connections associated with the mobile station and enhanced information associated with the dormant network connections." The prior art cited does not teach or suggest these claim limitations. As shown above, Haas does not disclose "a message including a number of dormant network connections associated with the mobile station." Haas discloses a base station sending a list of currently active mobile stations to all adjacent cells (and base stations). (Abstract). Because the transmission of Haas does not include "a message including a number of dormant network connections associated with the mobile station", as shown, it also cannot disclose its transmission including "enhanced information associated with the dormant network connections" because the "dormant connections" of Haas refer to dormant mobile stations with respect to a particular base station and not dormant network connections.

Claim 6 is allowable as depending from allowable amended claim 5.

Claim 9 recites a "mobile station configured to inform a packet data services network of dormant network connections associated with the mobile station" that includes the element of "a set of instructions executable by the processor to modulate and transmit from the mobile station a message including a number of dormant network connections associated with the mobile station and a reduced list of identifiers associated with the dormant network connections." As shown above, the prior art cited does not disclose, teach or suggest these claim limitations.

Claim 11 depends directly from claim 9. Thus, Applicants respectfully request that the rejection of claim 11 be withdrawn for at least the same reasons.

Claims 12-14 are allowable as depending directly from allowable claim 11.

Claim 15 recites a "mobile station configured to inform a packet data services network of dormant network connections associated with the mobile station" that includes the element of "a device configured to transmit from the mobile station a message including a number of dormant network connections associated with the mobile station and a reduced list of identifiers

associated with the dormant network connections." As shown above, the prior art cited does not teach or suggest these claim limitations.

Claims 17-20 depends directly from claim 15. Thus, Applicants respectfully request that the rejection of claims 17-20 be withdrawn for at least the same reasons.

Claim 21 recites a "mobile station configured to inform a packet data services network of dormant network connections associated with the mobile station" that includes the element of "means for transmitting from the mobile station a message including a number of dormant network connections associated with the mobile station and a reduced list of identifiers associated with the dormant network connections." As shown above, the prior art cited does not teach or suggest these claim limitations.

Claims 23-26 depend directly from claim 21. Thus, Applicants respectfully request that the rejection of claims 23-26 be withdrawn for at least the same reasons.

Claim Rejections Under 35 U.S.C. § 103(a)

The Examiner rejected claims 3, 4, 7, 8, 10, 16, 22 and 27-29 under 35 U.S.C. § 103(a) as being unpatentable over Haas in view of Chuah et al., U.S. Patent No. 6,496,491 (hereinafter, "Chuah"). This rejection is respectfully traversed.

The M.P.E.P. states that

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The, teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.
>
> The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

M.P.E.P. § 2142. A prima facie case of obviousness has not been established regarding claims 3, 4, 7, 8, 10, 16, 22 and 27-29 because the prior art cited does not teach or suggest all the claim limitations.

Claim 3 recites a "method of simplifying Packet Control Function network element functionality" that includes the element of "maintaining a reduced entry PPP connection table that includes radio access network (RAN) PDSN interface (RPI) communication pipe identifiers." The prior art cited does not teach or suggest these claim limitations.

Haas does not teach or suggest "maintaining a reduced entry PPP connection table that includes radio access network (RAN) PDSN interface (RPI) communication pipe identifiers." As shown above, Haas may teach or suggest a base station maintaining a list of active mobiles, the address of the destinations of the connections of the active mobiles, and the transmission channel numbers associated with the active mobiles. (Haas Col. 3, lines 50-64). At most Haas teaches or suggests a list that includes a list of active mobiles, the address of the destinations of the connections of the active mobiles, and the address of the destinations of the connections (if such exist) of the active mobiles. However, this is not "a reduced entry PPP connection table that includes radio access network (RAN) PDSN interface (RPI) communication pipe identifiers."

Chuah also does not teach or suggest the element of "maintaining a reduced entry PPP connection table that includes radio access network (RAN) PDSN interface (RPI) communication pipe identifiers." Column 14, lines 35-41 of Chuah are cited in the last Office Action as teaching a PPP connection table. See Office Action, Page 5. This part of Chuah refers to a "connection table similar to that shown in Table Four." Chuah, Col. 14, lines 37-38. The connection table of Table 4 in Chuah is "for each direction of communication for each established VPN session with a remote user." Chuah, Col. 6, lines 8-10. Chuah further states the following regarding Table 4:

> Anchor LAC associates with each VPN session a connection number. In addition, this connection number is mapped to the respective user. This table lists, by connection number, the Serving LAC IP Address, with associated tunnel ID and Call ID values for that hop, and the associated LNS IP Address, with associated tunnel ID and Call ID values for that associated hop.

14

PATENT

Id. at lines 20-26. Chuah discloses a VPN connection table. Chuah's VPN connection table is not a "reduced entry PPP connection table that includes radio access network (RAN) PDSN interface (RPI) communication pipe identifiers." Thus, Chuah does not teach or suggest "maintaining a reduced entry PPP connection table that includes radio access network (RAN) PDSN interface (RPI) communication pipe identifiers."

Furthermore, the combination of Haas and Chuah teaches away from the limitations of claim 3. Haas teaches a list of mobile stations that a particular base station is presently serving. The IDs are mobile station IDs, not PPP instances. This list is sent by a particular base station to all adjacent base stations. Chuah teaches transferring PPP instances using three messages. (Chuah, Col. 2, lines 1-9). Combining Haas and Chuah would result in a base station sending a message listing all PPP instances of all mobile stations handled by a particular base station to all adjacent base stations. This is not teaching "maintaining a reduced entry PPP connection table that includes radio access network (RAN) PDSN interface (RPI) connection pipe identifiers. Applicant respectfully requests that the rejection of claim 3 be withdrawn.

Claim 4 depends directly from claim 3. Thus, Applicants respectfully request that the rejection of claim 4 be withdrawn for at least the same reasons.

Claims 7-8 depend either directly or indirectly from claim 5. Claim 5 recites a method that includes the step of "transmitting from the mobile station a message including a number of dormant network connections associated with the mobile station and enhanced information associated with the dormant network connections." As discussed above, Haas does not teach or suggest these limitations. As a result, a prima facie case of obviousness has not been established regarding claims 7-8 because the cited prior art does not teach or suggest all the claim limitations. Accordingly, Applicants respectfully request that the rejection of claims 7-8 be withdrawn.

Claim 10 depends either directly or indirectly from claim 9. Claim 9 recites a "mobile station configured to inform a packet data services network of dormant network connections associated with the mobile station" that includes the element of "a set of instructions executable by the processor to modulate and transmit from the mobile station a message including a number of dormant network connections associated with the mobile station and a reduced list of

identifiers associated with the dormant network connections." As shown above, the prior art cited does not teach or suggest these claim limitations. As a result, a prima facie case of obviousness has not been established regarding claim 10 because the cited prior art does not teach or suggest all the claim limitations. Accordingly, Applicants respectfully request that the rejection of claim 10 be withdrawn.

Claim 16 depends either directly or indirectly from claim 15. Claim 15 recites a "mobile station configured to inform a packet data services network of dormant network connections associated with the mobile station" that includes the element of "a device configured to transmit from the mobile station a message including a number of dormant network connections associated with the mobile station and a reduced list of identifiers associated with the dormant network connections." As shown above, the prior art cited does not teach or suggest these claim limitations. As a result, a prima facie case of obviousness has not been established regarding claim 16 because the cited prior art does not teach or suggest all the claim limitations. Accordingly, Applicants respectfully request that the rejection of claim 16 be withdrawn.

Claim 22 depends either directly or indirectly from claim 21. Claim 21 recites a "mobile station configured to inform a packet data services network of dormant network connections associated with the mobile station" that includes the element of "means for transmitting from the mobile station a message including a number of dormant network connections associated with the mobile station and a reduced list of identifiers associated with the dormant network connections." As shown above, the prior art cited does not teach or suggest these claim limitations. As a result, a prima facie case of obviousness has not been established regarding claim 22 because the cited prior art does not teach or suggest all the claim limitations. Accordingly, Applicants respectfully request that the rejection of claim 22 be withdrawn.

Claim 27 recites a "packet data services node" that "is configured to maintain Point to Point Protocol connection tables of dormant network connections associated with a mobile station." Claim 27 further requires "a radio-access-network-PDSN channel interface," "a processor coupled to the radio-access-network-PDSN channel interface," and "a processor-readable medium accessible by the processor and containing a set of instructions executable by the processor to update the dormant network connection information associated with the mobile

PATENT

station." As shown above, the prior art cited does not teach or suggest these claim limitations. Thus, Applicants respectfully request that the rejection of claim 27 be withdrawn.

Claims 28-29 depend either directly or indirectly from claim 27. As discussed above, the prior art does not teach or suggest all of the claim limitations of claim 27. As a result, a prima facie case of obviousness has not been established regarding claims 28-29 because the cited prior art does not teach or suggest all the claim limitations. Accordingly, Applicants respectfully request that the rejection of claims 28-29 be withdrawn.

REQUEST FOR ALLOWANCE

In view of the foregoing, Applicant submits that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

Dated: April 6, 2005

By: _Roberta M. Young_

Roberta Young, Reg. No. 53,818
(858) 658-5803

QUALCOMM Incorporated
5775 Morehouse Drive
San Diego, California 92121
Telephone: (858) 658-5787
Facsimile: (858) 658-2502

Attorney Docket No.: 000090CIP
Customer No.: 23696   17